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Floyd et al.

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- [54] **SUPPORT BASE FOR SUBMARINE ANTENNA MAST**
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- [58] **Field of Search** **343/709, 710,**
343/704, 720, 765, 890; H01Q 1/34

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[57] **ABSTRACT**

A support base fabricated with a heat exchanger for use in supporting an antenna mast which contains heat generating electronic components. The base is attached to the faired mast of a submarine and the mast structure is attached to the support base. A cooling fluid is circulated through passageways within the mast adjacent to the electronic components to remove excess heat. The passageways are connected to the heat exchanger within the base. The heat exchanger consists of heat conductive exterior outer walls and an internal partition spaced inwardly from the outer wall forming a reservoir on the interior of the partition. The heated cooling fluid circulates through a serpentine passageway formed between the outer wall and the inner partition. Heat is dissipated through the outer wall into the surrounding medium. The passageway opens into the reservoir where the cooled fluid is returned to the electronic components. A watertight conduit is placed within the support for the passage of wiring to the electronic components. The seal between the mast and the support is also made watertight.

7 Claims, 1 Drawing Sheet

